

PHACELIA JUSS. (HYDROPHYLLACEAE) IN MISSISSIPPI

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Three species of Phacelia occur in Mississippi and are restricted to the northeast portion of the state. Phacelia dubia (L.) Trel. is the species most often encountered and is thought to be more widespread in the northeast part of the state than collections indicate (McDaniel, personal communication). Two other taxa, P. maculata Wood and P. bipinnatifida Michx. are very localized and apparently rare.

Lowe (1921) did not report Phacelia for Mississippi. Radford et al (1964) report Phacelia dubia (L.) Trel. to occur infrequently and in scattered localities, while Jones (1975) reported it to be a species of roadsides and fields in the Northeastern Prairie Belt of the state. It appears to be confined to the east central counties, infrequently encountered as localized populations. Phacelia maculata Wood and P. bipinnatifida Michx. have not previously been reported for Mississippi. Collection data indicate P. maculata to be a species of roadsides, while P. bipinnatifida is restricted to shale outcrops.

Key to the Mississippi Species of Phacelia

1. Largest leaves 35mm or more broad; inflorescence glandular-stipitate pubescent; seed black, 3mm-4mm long; biennial.....P. bipinnatifida
1. Largest leaves less than 35mm broad; inflorescence eglandular pubescent; seed brown, 2mm or less long.....2
2. Lower leaves to 45mm long, 15mm or less broad; sepals 5mm or less in length, narrowly ovate, marginal hairs appressed and usually less than 1mm long.....P. dubia
2. Lower leaves to 70mm long, 15mm or more broad; sepals 5mm or more in length, linear, marginal hairs spreading and 1mm or more long.....P. maculata

Phacelia bipinnatifida Michx.

Plants to 6dm tall; leaves petiolate, twice pinnatifid or clefted, upper and lower surface sparsely pubescent; stems spreading-hirsute and sparsely glandular: sepals linear-lanceolate, 0.4mm to

0.8mm long, glandular pubescent; corolla campanulate; petals 0.6mm to 0.8mm long, lavender to blue; style exerted and clefted to the middle; stamens long exerted; anthers yellow-brown; seed to 4mm long, black.

Flowers April to May

Tishomingo County: shale bluffs along Pickwick Lake. Rogers 46442 (IBE). Rare.

Phacelia dubia (L.) Trel.

Plants to 4dm tall; basal leaves petiolate, pinnate; upper leaves short petiolate to sessile; both leaf surfaces and petioles strigose; stems strigose; pedicels to 30mm long, pubescent; sepals narrowly ovate and to 4.5mm long, pubescent, marginal hairs appressed, mostly 1mm or less long; corolla campanulate; petals 0.4mm to 0.6 mm long, blue to white; style exerted and cleft to middle; stamens short exerted; anthers purple; seed 1.4mm to 1.8mm long, brown.

Flowers April to May

Clay and Lowndes Counties: sandy soils of roadsides. Tracy [without number] (MISSA). Infrequent, locally abundant.

Phacelia maculata Wood

Plants to 4.5dm tall; basal leaves petiolate, pinnate; upper leaves short petiolate or sessile; both leaf surfaces and petioles strigose; stems strigose; pedicels to 10mm long, pubescent; sepals linear to weakly spatulate, 7.0mm to 10.0mm long, pubescent, marginal hairs spreading, mostly 1mm or more long; corolla campanulate; petals 0.8mm to 12.0mm long, blue to violet-blue; style yellow-brown to brown; seed 1.5mm to 1.8mm long, brown.

Flowers April to early May

Noxubee County: on silty clay-loam soils of roadsides. Timme 5433 (IBE). Rare.

Jones, S.B., Jr. 1975. Mississippi Flora. IV. Dicotyledon Families with Aquatic and Wetland Species. Gulf Research Reports, Vol. 5, No. 1, 7-22.

Lowe, E. N. 1921. Plants of Mississippi, a list of flowering plants and ferns. Mississippi Geological Survey Bulletin No. 17, Hederman Bros., Jackson.

McDaniel, S. 1985. Department of Biological Sciences, Mississippi State University, MS.

Radford, A. E., H. E. Ahles, and C. R. Bell. 1964. Guide to the vascular flora of the Carolinas. University of North Carolina Book Exchange, Chapel Hill, 1183 p.